U.S. Serial No.: 10/601,611
Filed: June 23, 2003
Group Art Unit; 3763
Examiner: Mendez, Manuel A
Atty. Dooket No: 22719-42

AMENDMENTS TO THE CLAIMS

- (Currently Amended) An implantable fluid management device, comprising:

 a catheter having a proximal end, a distal end, and an inner lumen extending therethrough;
 a plurality of fluid entry ports formed in a sidewall of the catheter and in fluid
 communication with the inner lumen of the catheter; and
- a fluid-impermeable barrier coupled to the sidewall and occluding selected fluid entry ports, the barrier being selectively removable with respect to each of the selected fluid entry ports.
- 2. (Original) The device of claim 1, wherein the barrier is selected from the group consisting of a membrane, a cap, a plug, and a film.
- 3. (Original) The device of claim 1, further comprising:
- a microprocessor coupled to the catheter and effective to selectively control the application of a stimulus to one or more of the barriers to remove the barrier; and
- a plurality of conductors effective to carry an electric current, each conductor extending from the microprocessor to one or more of the barriers.
- 4. (Original) The device of claim 3, wherein the microprocessor is effective to initiate removal of the barrier in response to a signal received from a remote device.
- 5. (Original) The device of claim 3, further comprising a sensor disposed adjacent to one or more of the selected fluid entry ports, the microprocessor being effective to initiate removal of the barrier upon detection of a particular condition detected by the sensor.
- 6. (Original) The device of claim 3, wherein the stimulus is an electric current, and the barrier is formed from a material selected from the group consisting of copper, gold, silver, zinc, and conductive polymers or copolymers.
- 7. (Original) The device of claim 1, wherein the plurality of fluid entry ports are arranged in rows that extend around a diameter of the catheter and that are positioned longitudinally apart from one another, each row including at least one fluid entry port.

and

U.S. Scrial No.: 10/601,611
Filed: June 23, 2003
Group Art Unit: 3763
Examiner: Mendez, Manuel A
Atty. Docket No: 22719-42

- 8. (Currently Amended) The device of claim 7, further comprising a microprocessor <u>coupled</u> to the catheter effective to selectively remove the barrier on each fluid entry port in a particular row by controlling the application of a stimulus to the barrier through a plurality of conductors, each conductor extending from the microprocessor to one or more of the barriers.
- 9. (Original) The device of claim 7, further comprising a plurality of filter members, each filter member extending transversely to a longitudinal axis of the eatheter member and being positioned between two rows of fluid entry ports.
- 10. (Original) The device of claim 1, further comprising a filter material disposed around an inner diameter of the catheter and extending between the proximal and distal ends of the catheter.
- 11. (Currently Amended) A method of maintaining fluid flow through a catheter, comprising:

 providing a catheter comprising

an elongate member having a proximal end, a distal end, and an inner lumen extending therethrough.

a plurality of fluid entry ports formed in the elengate member and arranged in rows spaced apart from one another along a longitudinal length of the elengate member, each row including at least one fluid entry port,

a disintegratable barrier extending across selected fluid entry ports, a row of barrier free fluid entry ports adjacent the distal end of the clongate member,

a control member effective to selectively remove the barrier from each of the fluid entry ports;

detecting a blockage of fluid-flow through the a distal-most barrier-free row of fluid entry ports in a catheter;

activating the a control member to remove the disintegrate a barrier from a row of fluid entry ports positioned just proximal to the distal-most row of fluid entry ports; and repeating the steps of detecting and activating as necessary.

U.S. Serial No.: 10/601,611
Filed: June 23, 2003
Group Art Unit: 3763
Examiner: Mendez, Manuel A
Atty. Docket No: 22719-42

- 12. (New) The method of claim 11, wherein the control member sends an electric current through a conductor extending between the control member and the barrier when the control member is actuated.
- 13. (New) The method of claim 12, wherein a microprocessor is coupled to the control member and initiates disintegration of the barrier in response to a signal from a remote device.
- 14. (New) The method of claim 12, wherein a sensor disposed adjacent to one or more of the fluid ports detects a blockage of fluid-flow and communicates with the microprocessor to initiate disintegration of the barrier.
- 15. (New) An implantable fluid management device, comprising: a catheter having a proximal end, a distal end, and an inner lumen extending therethrough; a plurality of fluid entry ports formed in a sidewall of the catheter and in fluid communication with the inner lumen of the catheter; and
- a fluid-impermeable barrier coupled to the sidewall and occluding selected fluid entry ports, the barrier being selectively disintegratable with respect to each of the selected fluid entry ports.